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AMSAT NEWS SERVICE
ANS-201

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://amsat.org publishes news of Amateur Radio in space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat dot org.

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SB SAT @ AMSAT $ANS-201.01
ANS-201 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 201.01
>From AMSAT HQ KENSINGTON, MD.
July 19, 2020
To All RADIO AMATEURS
BID: $ANS-202.01

AMSAT Board of Directors Election Packages Mailed July 14

Brennan Price, N4QX, AMSAT Secretary reports that the ballots, candidate statements, and return envelopes for the 2020 AMSAT Board of Directors Election were prepared by Paladin Commercial Printing of Newington, Connecticut. Paladin mailed the packages from Hartford, Connecticut, on Tuesday, July 14, to members of record on July 1.

Non-US addresses were sent first class (the only option for overseas). US addresses were sent pre-sorted standard, which is routine for mail that requires a two-way response time measured in weeks, as this does.

Allowing for postal delivery standards and guard time, the Secretary will not consider a ballot as lost in post any earlier than August 12 (four weeks after the mailing). This timing permits a replacement ballot to be mailed first class in both directions, even internationally, with time to spare under prevailing postal delivery standards.

Paladin has shipped materials for 100 blank election packages to Price.
Price will use these materials to assemble and mail replacement or substitute packages as necessary. These requests and packages will be tracked and accounted against the voter list and returned ballots to guard against duplicates, and will be identifiable against the package

mailed by Paladin for further verification and accounting by the tellers. Members desiring a replacement ballot package should contact Price no earlier than August 12.

The package is clearly labeled as election-related and contains:

1) An instruction and ballot sheet, with the ballot perforated,
2) A sheet of candidate statements, and
3) A No 9 return envelope, which bears the address to which ballots should be returned and the member's name and address for verification against the voter list and any replacement ballot requests.

Secrecy at the time of counting will be maintained by separating the ballot from the envelope without inspection, placing the ballot in a receptacle, and scrutinizing the ballots after all have been separated from the envelopes.

Ballots should be returned in the return envelopes provided to arrive at the designated Post Office Box in Vienna, Virginia, by 5 p.m. Thursday, September 15, 2020. Separation of the ballots from the envelopes and counting will occur as soon thereafter as practicable, and no later than September 30.

Brennan can be reached at brennanprice(a)verizon.net for a query about membership status at any time or a replacement ballot after August 12.

[ANS thanks Brennan Price, N4QX, AMSAT Secretary for the above information.]

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Please continue to copy telemetry in FoxTelem. If you have removed HO-107 from your tracked satellites during its period of inactivity, please add it back. The transponder remains disabled while AMSAT Operations evaluates the telemetry from the satellite.

[ANS thanks AMSAT Operations for the above information]

First Call for Papers - Virtual 2020 AMSAT Annual Meeting and Space Symposium

This is the first call for papers for the Virtual 2020 AMSAT Annual Meeting and Space Symposium to be held on October 17, 2020. Proposals for papers and symposium presentations are invited on any topic of interest to the amateur satellite community. Further details regarding the virtual event will be announced shortly. We request a tentative title of your presentation as soon as possible, with the final copy to be submitted by October 5, 2020 for inclusion in the Symposium Proceedings. Abstracts and papers should be sent to Dan Schultz at n8fgv(at)amsat.org

[ANS thanks Dan Schultz, N8FGV, for the above information]

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Walter adds, "We recommend that users use module C for the AMSAT conversations but several other modules are available if we find a need to stretch out a bit. But, the C module is the one also linked to a few other repeaters.

"The D-STAR SAT reflector is not currently bridged into the system as are the DMR and YSF reflectors, but we hope to have that linked in very soon after a little more testing.

"If you have D-STAR capability, we invite you to give it a try and see how it works for you."

[ANS thanks Walter Holmes, K5WH for the above information]

SpaceX to Launch AMSAT-EA EASAT-2 and Hades Satellites

Spain's national amateur radio society URE says SpaceX expect to launch the EASAT-2 and Hades satellites in December 2020.

AMSAT-EA, the URE satellite group, is building the satellites together with the European University of Madrid. The launch has been managed through the space broker Alba Orbital based in Glasgow.

EASAT-2 and Hades will be launched into a sun-synchronous orbit between 500 km and 600 km and their main function is to act as analog and digital repeaters for radio amateurs. There is also a camera for SSTV transmissions provided by the Czech Republic that has already flown on the United States Marine Academy PSAT-2 satellite, and has now been adapted to fit into the PocketQube satellites.

Both satellites are based on the PocketQube 1.5P (7.5 x 5 x 5 cm) architecture and represent an evolution of the previous GENESIS platform, whose GENESIS-L and GENESIS-N satellites are expected to fly before the end of the year with Firefly, in a joint collaboration with Fossa Systems and LibreSpace, which also launch their own satellites, all of them within the Picobus dispenser, developed by the latter.

IARU has coordinated these frequencies:
- Hades - uplink 145.925 MHz, downlink 436.888 MHz
- EASAT-2 - uplink 145.875 MHz, downlink 436.666 MHz

[ANS thanks AMSAT-UK for the above information.]

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transmitters are increasingly being operated as "water vitalizers" or "water energizers". The manufacturer specifies 144.015 MHz as the transmission frequency in its product description.

"The DARC EMC department asks for further information with location information about conspicuous signals in this frequency range, in preparation for collective complaints.

"The devices apparently generate fields with considerable field strength and a long range. The signals appear increasingly in the morning or in the evening. The illegal transmitters are typically in operation for 5 to 60 minutes (integer multiples of 5 minutes). The signal is generally very stable in frequency, but occasionally shows short-term fluctuations of up to a few 100 Hz. Otherwise the carrier is not further modulated.

The frequency range 144.000 MHz to 146.000 MHz is assigned to the Amateur Radio service in Germany as the primary exclusive user."

A video of the interference caused by these devices and a map showing some of the cases so far detected in Germany can be seen at https://www.darc.de/der-club/referate/emv/

[ANS thanks AMSAT-UK for the above information.]

1240-1300 MHz Discussed at CEPT SE-40 Meeting

The 69th meeting of CEPT ECC Working Group SE-40, held June 23-25, discussed the Amateur Radio 1240-1300 MHz band, the meeting documents are now available.

Several contributions were received for the ECC Report dealing with the coexistence between the radionavigation-satellite service and the amateur service in the frequency band 1240 - 1300 MHz. The contributions were incorporated in the draft ECC Report. The CPG arrangements for the preparation of WRC-23 for AI 9.1 topic b) was noted.

The Russian Federation noted:
- 1240-1260 MHz is by the GLONASS system
- 1260-1300 MHz are used by EU's Galileo, Beijing's Beidou, Japan's QZSS and is planned to be used by Korea's KPS.

Among the documents available in Input, Info and Minutes are:
- SE40(20)052 Amateur Repeaters - IARU-R1
- SE40(20)051 Section 2 update WI_39 - IARU-R1
- SE40(20)050 Annex Draft report RNSS Amateur - Russian Federation
- SE40(20)049 Suggestions for RNSS and Amateur Service Compatibility, Russian Federation
- Info 1 Amateur repeaters 23 cm - IARU-R1
- Info 3 Letter to SE40 chairman on updated of ITU-R M.1092 - European Commission
- Minutes
- SE40(20)56A3 (1) Draft Report Amateur vs RNSS

Download the meeting documents from https://tinyurl.com/ANS-201-CEPT.

[ANS thanks AMSAT-UK for the above information.]

IARU Coordinates Two New Satellites

- HIAPO
HIAPO is a 1U CubeSat mission that is a unique platform being used to provide engaging meaningful hands-on STEM curriculum for Hawaii students K-12. Part of this curriculum involves obtaining data about solar flares solar particle events and the disturbances of the Earth's magnetic field. The students can also collect data on solar events with relation to the propagation of radio waves reflected or refracted back towards the Earth from the ionosphere. During the lifespan of this mission that data will be available for amateur operators to download directly from the satellite.

The Hawaii Science & Technology Museum was awarded a no-cost flight of the launch and a limited resources will not allow the development of an Amateur Radio digipeater. However if the launch date slips they plan to work with resources at AMSAT to develop a digipeater. Proposing a UHF downlink using 9k6 FSK with AX25. Planning a Firefly launch from Vandenberg in July 2020 into a 300 km orbit with 137 degree inclination together with Serenity and Spinnaker 3. A downlink on 437.225 MHz has been coordinated.

- VZLUSAT-2
VZLUSAT-2 is 3U CubeSat project of the University of West Bohemia in Pilsen and Czech Aerospace Research Centre. Students from four Czech technical universities are involved along with members of an Amateur Radio community from The Czech Republic.

The primary payload is the experimental Earth observation camera with an expected resolution around 30 to 50 m GSD. Secondary payloads of the mission are Radiation Orbital Monitor, Gama Ray Burst detector, X-ray detector and other sensors. This mission is fully open to Radio Amateurs who were also involved in the development of the satellite.

The space segment uses two Amateur bands for communication: An S-band for payload data downlink (DVBS2 ETSI EN 302 307 standard, 2 MBd, QPSK), and UHF downlink beacon (GMSK 1200 Bd), telecommand uplink (GMSK, 1200 Bd - 9600 Bd) and telemetry downlink (GMSK 4800, 9600 Bd). All the information is in an open format and everything needed for decoding is or will be published at: https://www.pilsencube.zcu.cz/vzlusat2/transmission.pdf.

Planning a launch from Cape Canaveral in the time window from December 2020 to March 2021 into SSO 500-600 km. A downlink on 437.325 MHz has been coordinated.

[ANS thanks the IARU for the above information.]

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- FN44/54, 7/22 - 7/31, KQ2RP: Just like last time, FM only.

- FN11+21 then 12+22 grid lines, 7/25, @NS3L Steve is heading out to these lines. Schedule to come.

- EN20/30 Line, July 28-31, @KX9X Sean is moving quickly towards his VUCC/R award by heading out again for two more grids. Watch his Twitter for details.

- DM97/98 & EM08/09: Super Rover @AD0DX is heading out for the Kansas QSO party and N0E. More to come.

Major Roves:

- @WY7AA is heading out again!
  Mon 7/20 DN67/68. All SSB and FM passes from about 1600-0400.
  Tue 7/21 DN57/58. All SSB and FM passes from about 1600-0400.
  Wed 7/22 Travel day no sats.
  Thu 7/23 DN55/56. All SSB and FM passes from about 1600-0400.
  Fri 7/24 DN65/66. All SSB and FM passes from about 1600-0400.
  Watch his QRZ page for details and updates.

[ANS thanks Robert Bankston, KE4AL for the above information.]

Hamfests, Conventions, Maker Faires, and Other Events

No events posted.

ARISS News

No pending school operations.

[ANS thanks Charlie Sufana, AJ9N for the above information.]

Shorts from All Over

- Sean Kutzko, KX9X To Present "Working Satellites" at DXE Virtual Hamfest and DX Academy July 25, 2020

Join Sean on Saturday, July 25, 2020 at 10:15 EDT for his thirty-minute presentation on Amateur Radio satellites. Sean's presentation is part of the DX Engineering Virtual Hamfest and DX Academy. The event is free and open to all. Register at https://tinyurl.com/ANS-201-Sean

- Behind Scenes SpaceX Crew Dragon Mission You Haven't Seen

NASA has just released a new video. It starts with "You saw history made with the first crewed launch and docking of the SpaceX Crew Dragon, but you didn't see the flurry of activity on board the International Space Station...until now.

"Join Expedition 63 Commander Chris Cassidy and his crew mates as they prepare their cameras to document the DM-2 launch, and look over their shoulders to witness the new American spacecraft dock to the station and deliver their new crew mates."

Watch the twelve minute video at https://tinyurl.com/ANS-201-Dragon.

[ANS thanks http://spaceref.com for the above information.]

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of six post-secondary years in this status.

Contact Martha at the AMSAT office for additional student membership information.

73,
This week's ANS Editor,
Frank Karnauskas, N1UW
n1uw at amsat dot org

Sent via AMSAT-BB(a)amsat.org. AMSAT-NA makes this open forum available to all interested persons worldwide without requiring membership. Opinions expressed are solely those of the author and do not reflect the official views of AMSAT-NA.

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